

***AMG-16***  
***HLA Evolution Process***  
***Update***

17 December 1996

# Topics

- **Revisit 5 step HLA evolution process based on discussions at AMG-15**
  - **add designation of responsibilities and approval authority**

# **Background: Basis for HLA Evolution**

- **Changes/enhancements should be based on issues raised by users of HLA**
- **Changes need to be evaluated in terms of benefits and impacts on the HLA user community**
- **AMG is the focus for evolution including identifying issues, evaluating options for addressing the issues, and approving changes**
- **As other programs begin implementation of HLA, they will be represented in the AMG process**

# **Background: Current Issue Areas Related to HLA Evolution**

- **Issues raised during HLA baseline development**
  - **API**
  - **Federation Management**
  - **Time Management**
  - **Data Distribution Management**
  - **Multiple Inheritance in OMT**
  - **Added information to support Federation Development Process**

# **Background: TST Support to HLA Evolution Process**

- **TST members will be designated as focal points for key areas, they will form the core of the TST, and the TST will be the vehicle for integration across areas; current focal points are:**
  - **Bob Lutz: OM**
  - **Reed Little: IF Spec (API)**
  - **Richard Fujimoto: TM**
  - **Katherine Morse: DDM**
  - **Judith Dahmann: Federation Management (FM)**
  - **Phil Zimmerman: Security**
- **A series of technical exchanges in key areas have been held to begin to develop an experience base to support HLA evolution**

# Regular HLA Checkpoints

- The six month cycles discussed as part of HLA transition will serve as routine checkpoints in the HLA process
- One month prior to each checkpoint
  - progress of issue investigations will be checked
  - proposed changes in architecture and impact on specification will be evaluated
  - draft changes in specifications will be prepared for AMG review
- Focal points will be responsible for drafting and integrating changes across the specifications
- Checkpoints also provide timing for more marginal changes in specifications (e.g. text updates, deleting parameters)
  - Specs have comment forms; these will be maintained by DMSO and coordinated via the TST

***First checkpoint is February 1997***

# Five Step Process Reviewed

- **Step 1**
  - an AMG member expresses a need for a capability
- **Step 2**
  - a summary issue paper and investigation plan is developed
- **Step 3**
  - plan is executed and AMG monitors progress
- **Step 4**
  - recommended changes to HLA spec are drafted
- **Step 5**
  - AMG reviews recommended changes

## Step 1: Program Need

- Process begins with a need identified by an AMG member
- Program provides a description of what its specific requirements are and why the HLA does not meet those requirements
  - program may provide ideas of ways to evolve HLA to meet this need
- DMSO/TST
  - works with the program to review the need to ensure that current HLA capabilities are not adequate
  - assess the extent to which this need applies to other programs implementing HLA

***Where the need cannot be met by the HLA and is one which applies to other users of the HLA, then proceed to next step----->***

**Decision to take to AMG is made by AMG member and DMSO collaboratively, based on results of AMG technical exchanges where appropriate**



## Step 2: General Issue Paper and Investigation Plan

- **DMSO TST drafts a general issue paper which describes the issue in a way that goes beyond the initiating program requirement**
  - may require bringing in other technical expertise in the area and coordinating with other programs with similar applications
- **An issue team (IPT-like) is formed with balanced representation of AMG programs to investigate the issue and identify options for addressing the issue**
  - include a TST focal point who will be responsible for coordinating activities in this area with the other HLA investigations
- **Investigation plan will identify timelines in conjunction with HLA checkpoints, to allow for synchronization of resolution of ongoing issues in a coordinated fashion**

***Once issue is approved, and plan is in place, proceed to next step----->***

**AMG reviews paper and plan, and approves for execution**

## Step 3: Plan Execution

- The issue team will proceed on the schedule laid out in the investigation plan
- The AMG will be kept apprised of progress
  - Important for efficient, yet broad based HLA evolution
- As the investigation proceeds
  - Issue may become better understood and the paper may be updated
  - The team may recommend the issue be dropped based on the results of the investigation
  - New issues may be identified which would be addressed in their own right

***The investigation may lead to a recommended change in the HLA specifications, and then process proceeds to the next step--->***

**Issue team proceeds, shares technical progress at AMG technical exchanges, and provides regular updates to the AMG at AMG meetings, including previews of prospective specification changes**

## **Step 4: Draft Recommended Changes to HLA Specification**

- **The team will draft recommended changes to the HLA specifications**
- **The TST focal point will coordinate these changes and integrate results into the AMG recommended changes for consideration at the next HLA checkpoint**

***Recommended changes go to the AMG for review and consideration, the next step in the process ----->***

- **Issue team (made up of representatives of AMG and other affected HLA components) is responsible for formulating recommended draft changes in specification**
- **TST responsible for drafting, coordinating and integrating changes into draft specification updates**

## **Step 5: AMG Reviews Recommended Changes**

- **The AMG reviews the proposed changes**
- **The benefits of the changes are assessed along with the costs of making the change**
- **The changes are then**
  - **approved for immediate incorporation,**
  - **approved for incorporation at a later checkpoint**
  - **held for later consideration,**
  - **sent back for further investigation, or**
  - **disapproved**

***Recommended changes are integrated into a revision in the specifications->***

- **AMG reviews/approves any changes**